DEPARTMENT OF ECOLOGY
State of Washington

E-5035

Section 2.2
Capital Budget Grant Request Form
Watershed Plan Implementation and Flow Achievement

Project Title: Water Management Initiative - Aquifer Replenishment Program - Phase III
[If your Watershed Plan Implementation and Flow Achievement Request is related to or part of a Operational Project Funding Request for 2009-11 please cross-reference the name of that project in parenthesis above]

County: Walla Walla, Columbia

WRIA: 32

If more space is needed attach additional sheets

1. Applicant Information

Applicant name Bob Bower, Hydrologist and Program Lead	**Phone no.** (541) 938-2170	**Fax no.** (541) 938-2170
Address 810 South Main Street		
City Milton-Freewater	**State** OR	**Zip code** 97862
Email address bob.bower@wwbwc.org		
Water right holder name (If applicable and if other than applicant) N/A	**Phone Number** ( )	**Fax Number** ( )
Mailing address		
City	**State**	**Zip code**

2. Project Location

Project name Water Management Initiative Aquifer - Replenishment Program - Phase III (Phase II is G0800353)
Project location Walla Walla Basin
Stream reach mile or location Walla Walla River Valley, consisting of Walla Walla River, Mill Creek, and Yellowhawk Creek areas in OR & WA.

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3. Project Type and Description

(Check all that apply)

Conservation and/or infrastructure improvement (pumps and pipes)	☒
Water storage feasibility study	☒
Water exchange or water right acquisition	☐

Please describe your project in detail

The Walla Walla Basin has initiated a monitoring framework and is currently acquiring data concerning stream flows and groundwater levels that will allow "successful water management" to occur in the Basin. The Water Management Initiative (WMI) is Walla Walla's attempt to provide successful water management, an operational grant entitled Walla Walla Watershed Management Partnership "Base Funding" has been submitted for funding to operate a local entity to provide leadership and implementation of these objectives. This initiative is attempting to augment existing stream flows while maintaining a viable agricultural community; this project assists that goal by providing the necessary monitoring and research to measure the effectiveness of projects undertaken as part of this Initiative as well as testing new methods of aquifer replenishment.

In the current biennium the monitoring project is investigating the impacts of two types of aquifer replenishment programs: field spreading and infiltration basins. A continued phase of this program will test the implementation of a third type of project that is integrated with an irrigation piping project.

The underlying status and trend of surface and groundwater will also continue to be monitored. This is important because groundwater levels are dropping at localized levels the Basin in addition to impacts on groundwater users, this also has implications on surface or Instream Flows under WAC 173-532. Effort is also being taken to integrate the hydrological information collected with fisheries data in an effort to identify correlations between hydrological conditions at reach and site spatial scales, to better guide investment of Salmon Recovery and Flow augmentation (piping) programs.

Phase I of this work began in 2007 with the Walla Walla Basin Watershed Council acting as the lead, and operating a coordinated project incorporating funding and project scopes both sides of the bi-state Basin, into a single monitoring framework. Phase II funded from the 07-09 Ecology Budget provided funding for data collection, modeling, start-up costs associated with monitoring hydrological processes, and information validating the application of groundwater replenishment projects.

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Use this box to make any other comments regarding the project and water rights involved

Phase III of this proposal will monitor the surface-groundwater response as the Basin begins to expand their suite of groundwater replenishment projects. This ability will also be necessary as the Basin gathers data to be prepared to assess any potential impacts from changes in the water hydrograph related to climate change.

The Flow From Flexibility Local Pilot Projects initiated under the WMI will also be reliant upon a high-resolution of hydrological and hydro-geological understanding that is being provided by this project. Information collected in Phase II correlating fisheries information and hydrological conditions will be crucial in indentifying priority reaches and periods for implementation of pilot projects. The development of Water Banking programs within the Walla Walla will also benefit from work identifying gaining/losing reaches and the inter-relationship between surface flows and the shallow aquifer.

The submitted scope of work for this effort includes the expansion of the monitoring and modeling program to a larger scale, incorporating the Mill Creek and Yellowhawk Creek areas.

Describe the project by task (statement of work)

The Proposal is to complete a portion of a phased workplan with a total of five phases, with this application requesting funding for the Third Phase. The project will be operated in sequence with the WMI Monitoring Phase II proposal also led by the WWBWC. The WWBWC will continue involvement with the project and the appropriate coordination with the Walla Walla Watershed Planning Unit or the Washington-Side "Partnership" that is under consideration in the current legislative session.

4. Project Budget

Project Budget

882765

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Total budget by project task or by expenditure

New Task #	Aquifer Replenishment Program Phase III Tasks (2009-2011)	ECY 09-11 DRAFT funding application	Priority	Comments
1	Development of Surface-groundwater Model as a Tool for WMI Partnership Management and On-the-ground project Implementation	$168,000	H	Increased time to develop local knowledge of the Model and expand geographic scope to cover entire Walla Walla River Valley (WWBWC take modeling lead role) Form modeling partnership between **WSU-OSU-WWBWC** for bi-state programming and model development. (OWEB Match)
2	Water Quality Sampling for Aquifer Recharge Projects	$33,600	H	Water Quality Monitoring for recharge project(s)
3	Walla Walla River Valley Shallow Aquifer Community Well Monitoring Network (Maintain and expand).	$49,000	H	Continue current system, expand to areas based on model sensitivity testing (OWEB Match)
4	Aquifer Testing and Characterization	$34,085	M	Continue current system, expand to areas based on model sensitivity testing. (USGS Involvement?) (OWEB Match)
5	Springs and Small Order stream flow monitoring (maintain and expand).	$45,000	H	Continue current system, expand to areas based on model sensitivity testing (OWEB Match)
6	Seasonal Flow inventories on Major Walla Walla River Systems (Seepage Runs)	$30,000	H	Continue flow inventory in major tributaries of Walla Walla basin (OWEB match)
7	Water Use and ET Project	$34,080	H	If expanding model to entire Walla Walla River valley (USGS Involvement?) (OWEB Match)
8	GIS Modeling-Analysis of Fisheries and Hydrology Monitoring Programs	$88,000	H	Refine Fisheries-hydrology GIS database and model. Utilize to help WMI policy and planning process as a decision making tool. (OWEB Match)
9	Fiber Optic Groundwater and Fisheries Project: Linking the role of Groundwater to Salmon Recovery in the Walla Walla Basin	$55,000	M	Funding for Fisheries Graduate Student to help interpret cross discipline connections between groundwater-fisheries datasets being generated by this project. (OWEB Match)
10	WMI Monitoring and Watershed Management Partnership Intergradations and Coordination: Merging Science with Policy	$96,000	H	Outreach and Integration with Policy and Planning portion of WMI. Includes outreach activities, meetings and workshops. (OWEB Match)
11	Integrated Piping-recharge Mitigation Project (Gardena Farms)	$250,000	H	Prototype design, permitting and construction of "dual-purpose" recharge-piping project. OSU-WWBWC work on optimizing infiltration-piping gallery design for WW basin. Partnership with Gardena Farms Irrigation Company #13
		$882,765		

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5. Funding Source Information

Total project amount expected to be provided by sources other than this program (dollar total and percent of project budget)
$1,562,065 57%

Identify sources and type of funding other than through this program grant. Include expected dates of participation. Include as an attachment; letters of commitment, offer letters, application approvals, etc.

Source and type of funding: Oregon Watershed Enhancement Board (WMI Monitoring Program)

Amount: $139,000 ($143,000: 2010-12)

Status: Confirmed (Submitting October 2009)

Dates of participation: 12/7/2007 to 12/31/2012

Source and type of funding: Bonneville Power Administration:

Amount: $80,000

Status: Secured

Dates of participation: 6/2007-6/2010

Source and type of funding: Oregon Watershed Enhancement Board (Fiber Optics Groundwater and Fisheries)

Amount: $375,000

Status: Secured

Dates of participation: 12/2007-12/2010

Source and type of funding: OWEB Watershed Enhancement Board (HBDIC Recharge Project)

Amount: $210,000

Status: Secured

Dates of participation: 2006-2009

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6. Instream Flow and other Instream Habitat Benefits

A. Water Right Information - Attach Water Right documents
(You may skip this section if this application is for Storage Feasibility Study funding)

Water right holder's name (if other than applicant) This application is for Storage Feasibility Funding	Phone no: ( )	Fax no: ( )
Address		
City	State	Zip code
Complete legal description of the property attached to this water right:		
Water right number:		
Parcel number associated with this water right:		
Do you own the property proposed for this project? If not, please explain:		
If the grant applicant is not the water right holder, please explain the reason:		

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Water source (Stream name).

B. Water Usage

Has water been put to beneficial use in the past five years?

Yes ☐ No ☐ I don't know ☐

Describe that use in terms of the specific beneficial use during that period:

(Please attach any available documents that verify that use during the last five years. Include aerial photographs, power company records, flow meter records, crop type records, NRCS documentation or FSA records)

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Has beneficial use of this water ceased for a period of five or more years during any period since 1967? Yes ☐ No ☐
Please describe the beneficial use for the water quantified under the water right discussed above. Describe the following: purpose (examples: domestic, irrigation, municipal); system type; if irrigation, describe crop type.
Quantify as nearly as possible current water use: Instantaneous rate (QI) of use: CFS Annual rate (QA) of use ACRE- FEET
Historic beneficial use quantity of the water right (highest of the last 5 years/ irrigation seasons in instantaneous and annual quantities) _____ CFS _____ ACRE-FEET
If irrigation, how many acres are irrigated under this water right?
Are there other water rights associated with this specific water right?
In order to process this pre-application ecology requires the following information (include for the previous five years; please attach copies of all documents and maps) • Power data (contact local power utility for pump records, etc.) • Historical crop type data (contact local FSA office) • Flow meter records (contact local power utility) • Aerial photos (contact local FSA office)

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C. Estimated Total Water Savings

Infrastructure projects: Estimate the water to be conserved through this project. Provide engineering or technical analysis to support this estimate.

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
QA (ACRE-FEET)													
QI (CFS)													

D. Additional Instream Benefits

Describe other instream benefits envisioned as a result of funding this project:

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7. Resources currently committed to ensure long-term performance of the proposed project (operation and maintenance).

Who is responsible for long-term operation and maintenance of the project?
The Monitoring Program portion has no long-term obligations for O&M, while the Groundwater Replenishment programs are structured to operate on a schedule matching grant funding. Existing Washington recharge projects have been feasibility projects, and additional projects developed under this grant will also be feasibility projects, and information collected during the grant period will accomplish the primary objectives for their installation. However, if a water right holder were to identify value in a project continuing beyond the grant period to mitigate an action, increase streamflows, or to improve their situation in some way they could be approached to take on the long-term operation and maintenance.

Have operation and maintenance costs been identified? Yes ☐ No ☒

If yes, please describe:

Summarize these costs on an annual basis below:

Are measurement devices other than diversion source meters necessary to monitor compliance with the project intent or plan? Yes ☒ No ☐
If yes, please describe: Please see the QAPP available online at:
http://www.wallawallawatershed.org/wmi.html

Does a water measurement device exist on the source and downstream of the proposed project?
☐ yes ☐ no

If no, will a water measurement device be installed as part of this project? Yes ☐ No ☐
If yes, describe location and operating entity:

If yes, provide the river mile:

What is the nearest stream gage downstream of the proposed project? Source name

River mile :

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8. Proponent's Readiness to Proceed

Describe status of feasibility reports, engineering design, and permits. Provide documentation for these deliverables and describe the project effort timeline as appropriate (submit two (2) copies of all required documents).

Does the project proponent own the land for the proposed project? If not, does the proponent have documented access to the right of way or owns an easement to the property proposed (please attach appropriate documentation including title report as applicable).

Design/Engineering Status:

Pre-planning (pre - permitting)	☐	Status:
Pre-design (design reports) (10%)	☐	Status:
Schematic design (30%)	☐	Status:
Design development (75%)	☐	Status:
Construction documents (95%)	☐	Status:
Bid documents (ready for bid)	☐	Status:

Permit Status

SEPA	☐	Status:
401	☐	Status:
Dept. of Fish and Wildlife consultation	☐	Status:
Storage and/or Secondary Use Permit	☐	Status:
Other: (_____)	☐	Status:
Other:(_____)	☐	Status:
Other: (_____)	☐	Status:

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9. Signatures (send this sheet electronically and by original signature in surface mail)

I certify that the information above is true and accurate to the best of my knowledge.

I understand that in order to process my application, I am hereby granting staff from the Department of Ecology access to the above site(s) for inspection and monitoring purposes.

If assisted in the preparation of the above application, I understand that all responsibility for the accuracy of the information rests with me.

I also understand that I may rescind this application at any time prior to signing the Agreement with no other obligations or requirements.

WWBWC — 01/07/09

(Applicant/ Grant Recipient) (Date)

_____ ____/____/____

(Water Right Holder) (Date)

_____ ____/____/____

(Land Owner(s) of Existing Place of Use) (Date)

For More Information Contact:

Dave Burdick
Voice: (360) 407-6094
Email: dbur461@ecy.wa.gov
Web: http://www.ecy.wa.gov/watershed/Index.html

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